DOCKET FILE COPY ORIGINAL

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

ORIGINAL

In re Applications of	)	MM docket No. 97-76
	)	
POSITIVE ALTERNATIVE RADIO, INC.	)	File No. BPED-920327MH
	)	
For Construction Permit for a New Noncommercial Educational FM Station on 88.1 MHZ (Channel 201A) at Pt. Pleasant, West Virginia	)	
	)	
and	)	
	)	
THE UNIVERSITY OF WEST VIRGINIA BOARD OF TRUSTEES	)	File No. BPED-921023MB
	)	
For Modification of Facilities of Station WMUL-FM at Huntington, West Virginia	)	

To: Honorable Arthur I. Steinberg
Administrative Law Judge

PETITION FOR LEAVE TO AMEND

The University of West Virginia Board of Trustees, licensee of Station WMUL-FM ("WMUL-FM"), by and through counsel and pursuant to Section 73.3522(b) of the Commission's Rules, 47 C.F.R.§ 73.3522(b), hereby submits a Petition for Leave to Amend its application with an amended technical proposal which will remove the mutual exclusivity with the other applicant, Positive Alternative Radio, Inc. ("PAR") and permit the grant of both applications. The parties have acted with diligence and in accord the Presiding Officer's procedural schedule. Moreover, a grant of this amendment and a similar amendment by PAR will allow both applications to be granted and the public interest to be served by the initiation of improved service from WMUL-FM and a new service from PAR. Finally, a grant of the instant amendment will bring this

comparative hearing to an end and conserve the resources of the Commission and the parties. Consequently, good cause exists for permitting WMUL to amend it application.

WHEREFORE, the premises considered, it is respectfully requested that the instant petition be granted, that the application of WMUL be amended, and that the amended application be granted.

Respectfully submitted,
UNIVERSITY OF WEST VIRGINIA
BOARD OF TRUSTEES

By: /s/ William D. Silva
William D. Silva
Law Offices of William D. Silva
5335 Wisconsin Avenue, N.W.
Suite 400
Washington, D.C. 20015-2003
Its Attorney

202-362-1711

August 1, 1997

AMENDMENT

The application of The University of West Virginia Board of Trustees (Marshall University) to modify the license of Station WMUL-FM, Huntington, West Virginia (File No. BPED-921023MB) is hereby amended with the foregoing information.

CERTIFICATION

I hereby certify that the foregoing information is true and correct to the best of my knowledge and belief and is submitted in good faith.

7/31/97
Date

CERTIFICATE OF SERVICE

I, William D. Silva, hereby certify that on this 1st day of August, 1997, I have served a copy of the foregoing "Petition for Leave to Amend" by U.S. Mail, first class, postage prepaid, on the following:

*Honorable Arthur I. Steinberg
Administrative Law Judge
Federal Communications Commission
2000 L Street, N.W., Room 228
Washington, D.C. 20554

*James Shook, Esquire
Hearing Branch, Enforcement Division
Federal Communications Commission
2025 M Street, N.W. Room 8202
Washington, D.C. 20554

Cary S. Tepper, Esquire
Booth, Freret, Imlay & Tepper, P.C.
5101 Wisconsin Avenue, N.W.
Suite 307
Washington, D.C. 20016

* - Hand-delivered

/s/ William D. Silva
William D. Silva

NOTARIZED COPY

ENGINEERING EXHIBIT E-1

AMENDMENT TO PENDING

APPLICATION BPED-921023MB

WMUL(FM) - HUNTINGTON, WV

West Virginia Board of Trustees
Huntington, WV

July 16, 1997

Prepared for: Mr. Charles Bailey
Radio Station WMUL
Marshall University
400 Hal Greer Boulevard
Huntington, WV 25755

CARL E. SMITH CONSULTING ENGINEERS

2324 N. CLEVE-MASS RD., BOX 807 216/659-4440 BATH, OHIO 44210-0807

CONTENTS

Title Page

Contents

FCC Form 340

Section V-B

Engineering Affidavits

Roy P. Stype, III
Elmer L. Steingass

Engineering Statement

1.0 General

2.0 Allocation Considerations

Fig. 2.0 - FM Allocation Study

Table 2.0 - FM Allocation Study - Channel 201B1 (88.1 MHz) - Huntington, WV

Fig. 2.1 - TV Channel 6 Protection

3.0 Proposed Antenna System

Fig. 3.0 - Vertical Plan View

Table 3.1 - WMUL Proposed Directional Pattern

Fig. 3.1 - WMUL Proposed Directional Pattern

Fig. 3.2 - Vertical Radiation Pattern

4.0 Proposed 1 mV/m Contour

Table 4.0 - WMUL Proposed 1 mV/m Contour

Fig. 4.0 - WMUL Licensed, Applied For, And Proposed 1 mV/m Contours

CONTENTS

(cont'd)

5.0 Proposed Site

Fig. 5.0 - Topographic Map Showing Site (Full Size)

Fig. 5.1 - Topographic Map Showing Site (Reduced)

Section V-B - FM BROADCAST ENGINEERING DATA	FOR COMMISSION USE ONLY File No. _____ ASB Referral Date _____ Referred by _____

Name of Applicant

West Virginia Board of Trustees

Call letters *(if issued)*	Is this application being filed in response to a window? ☐ Yes ☒ No
WMUL	If Yes, specify closing date: N/A

Purpose of Application: *(check appropriate boxes)*

- ☐ Construct a new (main) facility
- ☐ Construct a new auxiliary facility
- ☐ Modify existing construction permit for main facility
- ☐ Modify existing construction permit for auxiliary facility
- ☒ Modify licensed main facility (Amendment)
- ☐ Modify licensed auxiliary facility

If purpose is to modify, indicate below the nature of change(s) and specify the file number(s) of the authorizations affected.

- ☐ Antenna supporting-structure height
- ☒ Antenna height above average terrain
- ☐ Antenna location
- ☐ Main studio location
- ☒ Effective radiated power
- ☐ Frequency
- ☒ Class
- ☒ Other *(Summarize briefly)* Install Directional Antenna

File Number(s) BPED-921023MB

1. Allocation:

Channel No.	Principal community to be served: City	County	State
201	Huntington	Cabell	WV

Class *(check only one box below)*

☐ A ☒ B1 ☐ B ☐ C3 ☐ C2 ☐ C1 ☐ C ☐ D

2. Exact location of antenna.

(a) Specify address, city, county and state. If no address, specify distance and bearing relative to the nearest town or landmark.

Atop the Science Hall, Marshall University, Huntington, Cabell County, West Virginia.

(b) Geographical coordinates (to nearest second). If mounted on element of an AM array, specify coordinates of center of array. Otherwise, specify tower location. Specify South Latitude or East Longitude where applicable; otherwise, North Latitude or West Longitude will be presumed.

Latitude	38°	25'	26"	Longitude	82°	25'	39"

3. Is the supporting structure the same as that of another station(s) or proposed in another pending application(s)? ☐ Yes ☒ No

If Yes, give call letter(s) or file number(s) or both. N/A

If proposal involves a change in height of an existing structure, specify existing height above ground level including antenna, all other appurtenances, and lighting, if any. N/A

4. Does the application propose to correct previous site coordinates? ☐ Yes ☒ No
If Yes, list old coordinates.

Latitude ° ' "	Longitude ° ' "

5. Has the FAA been notified of the proposed construction? ☐ Yes ☒ No
If Yes, give date and office where notice was filed and attach as an Exhibit a copy of FAA determination, if available.

Exhibit No. N/A

Date _____ Office where filed _____

6. List all landing areas within 8 km of antenna site. Specify distance and bearing from structure to nearest point of the nearest runway.

	Landing Area	Distance (km)	Bearing (degrees True)
(a)	Lawrence County	5.4	264.5
(b)			

7. (a) Elevation: *(to the nearest meter)*

(1) of site above mean sea level; 168 meters

(2) of the top of supporting structure above ground (including antenna, all other appurtenances, and lighting, if any); and 48 meters

(3) of the top of supporting structure above mean sea level [(aX1) + (aX2)] 216 meters

(b) Height of radiation center: *(to the nearest meter)* H = Horizontal; V = Vertical

(1) above ground 43 meters (H)

43 meters (V)

(2) above mean sea level [(aX1) + (bX1)] 211 meters (H)

211 meters (V)

(3) above average terrain -12 meters (H)

-12 meters (V)

8. Attach as an Exhibit sketch(es) of the supporting structure, labelling all elevations required in Question 7 above, except item 7(bX3). If mounted on an AM directional-array element, specify heights and orientations of all array towers, as well as location of FM radiator.

Exhibit No. E-1

9. Effective Radiated Power:
(a) ERP in the horizontal plane 9.0 kw (H*) 9.0 kw (V*)

(b) Is beam tilt proposed? ☐ Yes ☒ No

If Yes, specify maximum ERP in the plane of the tilted beam, and attach as an Exhibit a vertical elevational plot of radiated field.

Exhibit No. N/A

_____ kw (H*) _____ kw (V*)

*Polarization

10. Is a directional antenna proposed? [X] Yes [ ] No

If Yes, attach as an Exhibit a statement with all data specified in 47 C.F.R. Section 73.316, including plot(s) and tabulations of horizontally and vertically polarized radiated components in terms of relative field. Exhibit No. E-1

11. Will the main studio be located within the 70 dBu or 3.16 mV/m contour? [X] Yes [ ] No

If No, attach as an Exhibit justification pursuant to 47 C.F.R. Section 73.1125. Exhibit No. N/A

12. Are there: (a) within 60 meters of the proposed antenna, any proposed or authorized FM or TV transmitters, or any nonbroadcast *(except citizens band or amateur)* radio stations; or (b) within the blanketing contour, any established commercial or government receiving stations, cable head-end facilities, or populated areas; or (c) within ten (10) kilometers of the proposed antenna, any proposed or authorized FM or TV transmitters which may produce receiver-induced intermodulation interference? [ ] Yes [X] No

If Yes, attach as an Exhibit a description of any expected, undesired effects of operations and remedial steps to be pursued if necessary, and a statement accepting full responsibility for the elimination of any objectionable interference (including that caused by receiver-induced or other types of modulation) to facilities in existence or authorized or to radio receivers in use prior to grant of this application. *(See 47 C.F.R. Sections 73.315(b), 73.316(d) and 73.318.)* Exhibit No. N/A

13. Attach as an Exhibit a 7.5 minute series U.S. Geological Survey topographic quadrangle map that shows clearly, legibly, and accurately, the location of the proposed transmitting antenna. This map must comply with the requirements set forth in Instruction D for Section V. Further, the map must clearly and legibly display the original printed contour lines and data as well as latitude and longitude markings, and must bear a scale of distance in kilometers. Exhibit No. E-1

14. Attach as an Exhibit *(name the source)* a map which shows clearly, legibly, and accurately, and with the original printed latitude and longitude markings and a scale of distance in kilometers: Exhibit No. E-1

(a) the proposed transmitter location, and the radials along with profile graphs have been prepared;

(b) the 1 mV/m predicted contour and, for noncommercial educational applicants applying on a commercial channel, the 3.16 mV/m contour; and

(c) the legal boundaries of the principal community to be served.

15. Specify area in square kilometers (1 sq. mi. = 2.59 sq. km.) and population (latest census) within the predicted 1 mV/m contour.

Area 853 sq. km. Population 118,184

16. Attach as an Exhibit a map *(Sectional Aeronautical charts where obtainable)* showing the present and proposed 1 mV/m (60 dbu) contours. Exhibit No. E-1

Enter the following from Exhibit above:

Gain Area 0 sq. km

Loss Area 131 sq. km

Percent change (gain area plus loss area as percentage of present area) 13.3 %.

If 50% or more this constitutes a major change. Indicate in question 2(c), Section I, accordingly.

(With respect to application as originally filed)

17. For an application involving an auxiliary facility only, attach as an Exhibit a map *(Sectional Aeronautical Chart or equivalent)* that shows clearly, legibly, and accurately, and with latitude and longitude markings and a scale of distance in kilometers:

Exhibit No. N/A

(a) the proposed auxiliary 1 mV/m contour; and

(b) the 1 mV/m contour of the licensed main facility for which the applied-for facility will be auxiliary. Also specify the file number of the license. See 47 C.F.R. Section 73.1675. (File No.: _____)

18. Terrain and coverage data *(to be calculated in accordance with 47 C.F.R. Section 73.313).*

Source of terrain data: *(check only one box below)*

[X] Linearly interpolated 30-second database [ ] 7.5 minute topographic map

(Source: NGDC)

[ ] Other *(briefly summarize)*

Radial bearing (degrees True)	Height of radiation center above average elevation of radial from 3 to 16 km (meters)	Predicted Distances to the 1 mV/m contour (kilometers)
0	-31	13.1
45	-8	11.4
90	20	17.6
135	-32	17.6
180	-23	17.6
225	-2	17.6
270	14	17.6
315	-31	17.6

Allocation Studies

(See Subpart C of 47 C.F.R. Part 73)

19. Is the proposed antenna location within 320 kilometers (199 miles) of the common border between the United States and Mexico? [ ] Yes [X] No

If Yes, attach as an Exhibit a showing of compliance with all provisions of the Agreement between the United States of America and the United Mexican States concerning Frequency Modulation Broadcasting in the 88 to 108 MHz band.

Exhibit No. N/A

20. Is the proposed antenna location within 320 kilometers of the common border between the United States and Canada? ☐ Yes ☒ No

If Yes, attach as an Exhibit a showing of compliance with all provisions of the Working Agreement for Allocation of FM Broadcasting Stations on Channels 201-300 under The Canada-United States FM Agreement of 1947. Exhibit No. N/A

21. If the proposed operation is for a channel in the range from channel 201 through 220 (88.1 through 91.9 MHz), or if this proposed operation is for a class D station in the range from Channel 221 through 300 (92.1 through 107.9 MHz), attach as an Exhibit a complete allocation study to establish the lack of prohibited overlap of contours with other U.S. stations. The allocation study should include the following: Exhibit No. E-1

(a) The normally protected interference-free and the interfering contours for the proposed operation along all azimuths.
(b) Complete normally protected interference-free contours of all other proposals and existing stations to which objectionable interference would be caused.
(c) Interfering contours over pertinent arcs of all other proposals and existing stations from which objectionable interference would be received.
(d) Normally protected and interfering contours over pertinent arcs, of all other proposals and existing stations, which require study to show the absence of objectionable interference.
(e) Plot of the transmitter location of each station or proposal requiring investigation, with identifying call letters, file numbers and operating or proposed facilities.
(f) When necessary to show more detail, an additional allocation study will be attached utilizing a map with a larger scale to clearly show interference or absence thereof.
(g) A scale of kilometers and properly labeled longitude and latitude lines, shown across the entire Exhibit(s). Sufficient lines should be shown so that the location of the sites may be verified.
(h) The name of the map(s) used in the Exhibit(s).

22. With regard to any stations separated by 53 or 54 channels (10.6 or 10.8 MHz) attach as an Exhibit information required in 1/ *(separation requirements involving intermediate frequency (i.f.) interference).* Exhibit No. E-1

23.(a) Is the proposed operation on Channel 218, 219, or 220? ☐ Yes ☒ No

(b) If the answer to (a) is yes, does the proposed operation satisfy the requirements of 47 C.F.R. Section 73.207? ☐ Yes ☐ No

(c) If the answer to (b) is yes, attach as an Exhibit information required in 1/ regarding separation requirements with respect to stations on Channels 221, 222 and 223. Exhibit No. N/A

(d) If the answer to (b) is no, attach as an Exhibit a statement describing the short spacing(s) and how it or they arose. Exhibit No. N/A

1/ A showing that the proposed operation meets the minimum distance separation requirements. Include existing stations, proposed stations, and cities which appear in the Table of Allotments; the location and geographic coordinates of each antenna, proposed antenna or reference point, as appropriate; and distance to each from proposed antenna location.

SECTION V-B – FM BROADCAST ENGINEERING DATA (Page 6)

(e) If authorization pursuant to 47 C.F.R. Section 73.215 is requested, attach as an Exhibit a complete engineering study to establish the lack of prohibited overlap of contours involving affected stations. The engineering study must include the following:

Exhibit No. N/A

(1) Protected and interfering contours, in all directions (360), for the proposed operation.
(2) Protected and interfering contours, over pertinent arcs, of all short-spaced assignments, applications and allotments, including a plot showing each transmitter location, with identifying call letters or file numbers, and indication of whether facility is operating or proposed. For vacant allotments, use the reference coordinates as transmitter location.
(3) When necessary to show more detail, an additional allocation study utilizing a map with a larger scale to clearly show prohibited overlap will not occur.
(4) A scale of kilometers and properly labeled longitude and latitude lines, shown across the entire exhibit(s). Sufficient lines should be shown so that the location of the sites may be verified.
(5) The official title(s) of the map(s) used in the exhibits(s).

24. Is the proposed station for a channel in the range from Channel 201 to 220 (88.1 through 91.9 MHz) and the proposed antenna location within the distance to an affected TV Channel 6 station(s) as defined in 47 C.F.R. Section 73.525?

[X] Yes [ ] No

If Yes, attach as an Exhibit either a TV Channel 6 agreement letter dated and signed by both parties or a map and an engineering statement with calculations demonstrating compliance with 47 C.F.R. Section 73.525 for each affected TV Channel 6 station.

Exhibit No. E-1

25. Is the proposed station for a channel in the range from Channel 221 to 300 (92.1-107.9 MHz)?

[ ] Yes [X] No

If Yes, attach as an Exhibit information required in 1/. *(Except for Class D (secondary) proposals.)*

Exhibit No. N/A

26. Environmental Statement *(See 47 C.F.R. Section 1.1301 et seq.)*

Would a Commission grant of this application come within Section 1.1307 of the FCC Rules, such that it may have a significant environmental impact?

[ ] Yes [X] No

If you answer Yes, submit as an Exhibit an Environmental Assessment required by Section 1.1311.

Exhibit No. N/A

If No, explain briefly why not. Categorically excluded by Section 1.1306 of the FCC Rules.

CERTIFICATION

I certify that I have prepared this Section of this application on behalf of the applicant, and that after such preparation, I have examined the foregoing and found it to be accurate and true to the best of my knowledge and belief.

Name *(Typed or Printed)*	Relationship to Applicant *(e.g., Consulting Engineer)*
Elmer L. Steingass	Consulting Engineer
Signature	Address *(Include ZIP Code)*
E. L. Steingass	2324 N. Cleveland-Massillon Road Bath, OH 44210
Date	Telephone No. *(Include Area Code)*
7/16/97	(216) 659-4440

TABLE 2.0

FM ALLOCATION STUDY - CHANNEL 201B1 (88.1 mHz) - HUNTINGTON, WV

WEST VIRGINIA BOARD OF TRUSTEES
HUNTINGTON, WV

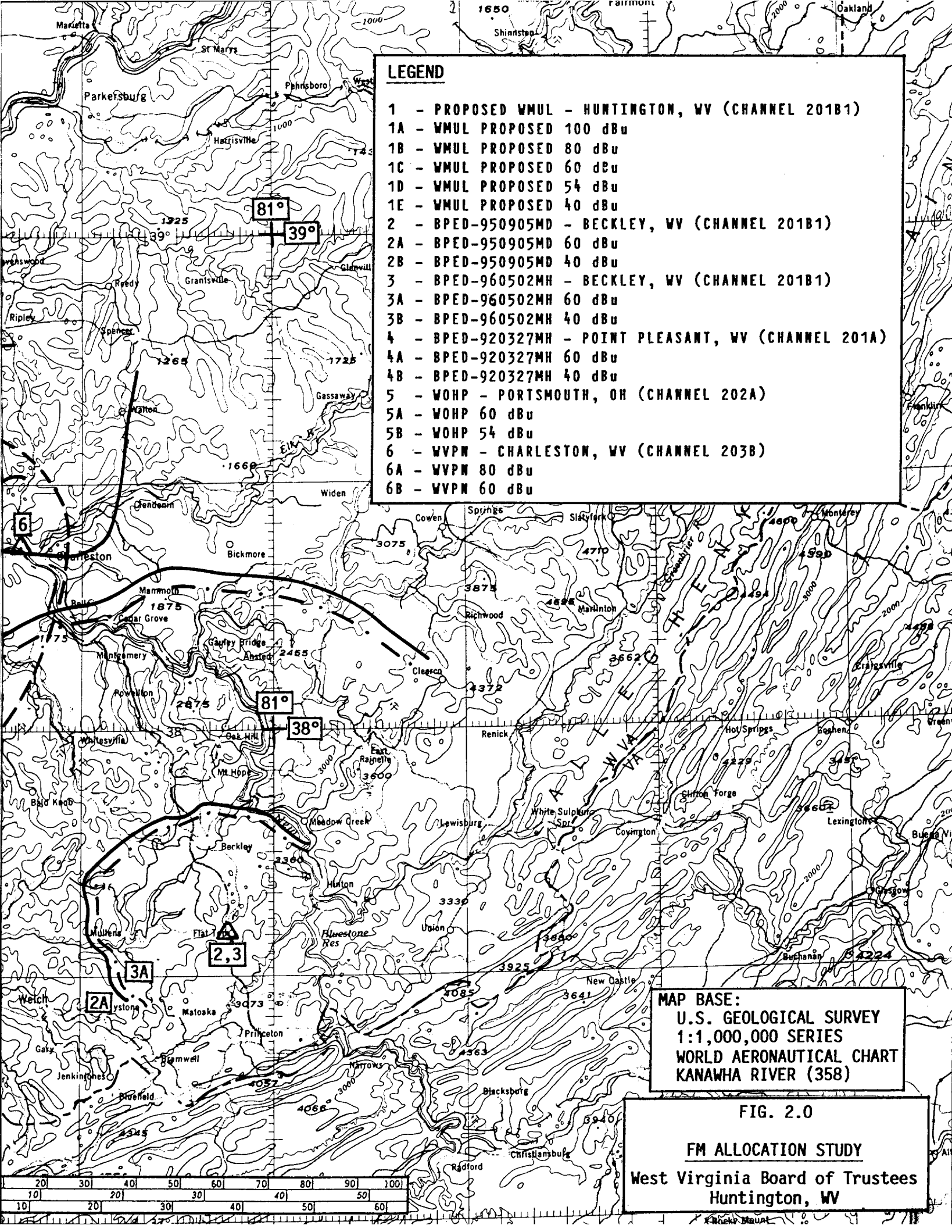
STUDY COORDINATES: 38/25/26 82/25/39

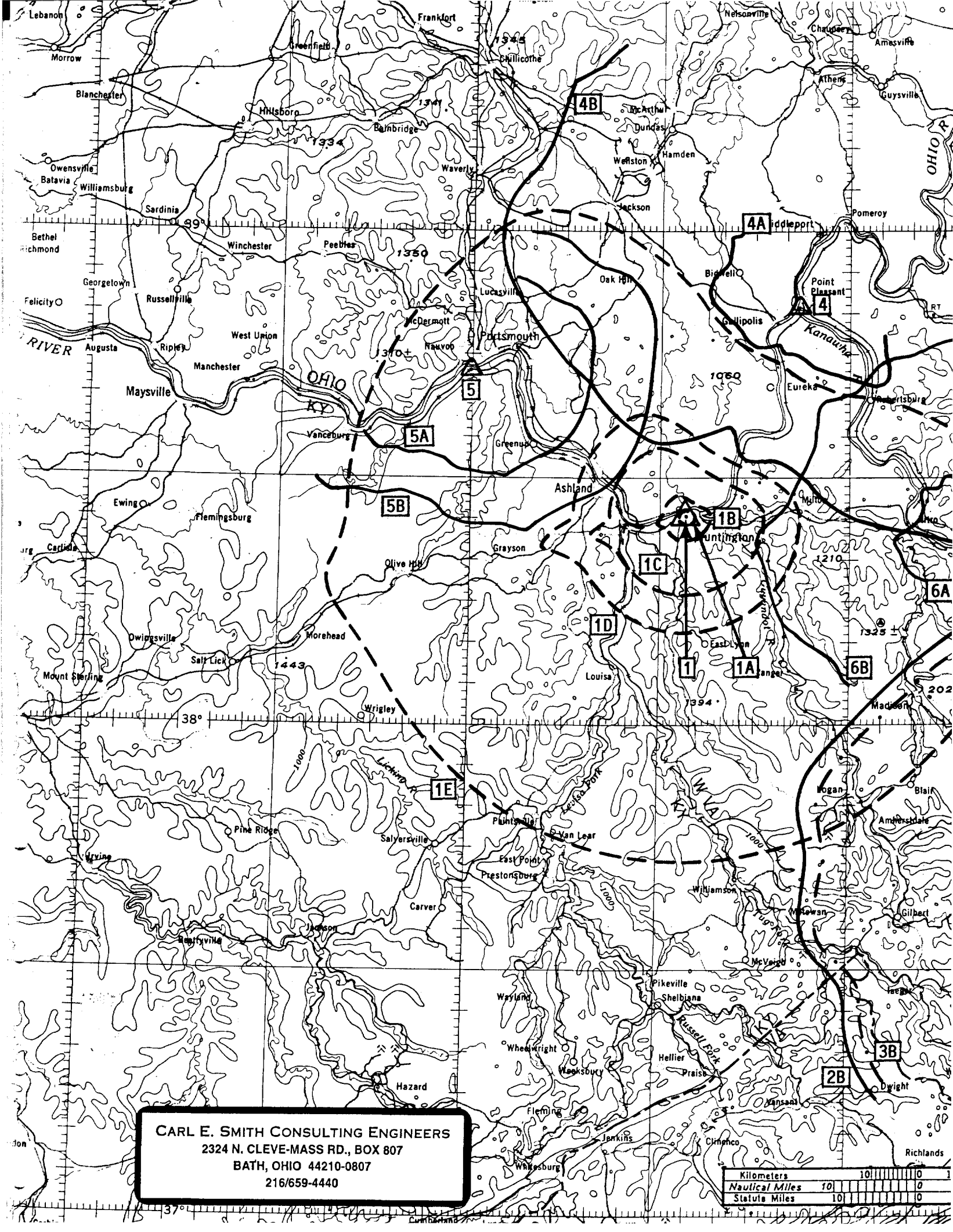
STATION	LOCATION	CHANNEL	CLASS	SPACING (km)	REQUIRED SPACING* (km)	NOTES
WRVZ	Pocatalico, WV	254	A	64.92	12.0	1,2
WRVZ	Pocatalico, WV	254	A	64.92	12.0	1,7
WRVZ	Pocatalico, WV	254	A	68.51	12.0	1
WCLX	McArthur, OH	254	A	81.85	12.0	
WSIPFM	Paintsville, KY	255	C1	77.03	24.0	

* Required Spacing Per Section 73.207 of The FCC Rules

Notes:

1 - Applied For Under Section 73.215
2 - Construction Permit
3 - Channel Deletion Proposed
4 - Move From This Channel Ordered
5 - Move to This Channel Ordered
6 - One Step Reference Site
7 - Pending Application
8 - Petition For Reconsideration
9 - Proposed Rulemaking
10 - Rulemaking Petition
11 - Short-Spaced
12 - Vacant Allotment


LEGEND
1 - PROPOSED WMUL - HUNTINGTON, WV (CHANNEL 201B1)
1A - WMUL PROPOSED 100 dBu
1B - WMUL PROPOSED 80 dBu
1C - WMUL PROPOSED 60 dBu
1D - WMUL PROPOSED 54 dBu
1E - WMUL PROPOSED 40 dBu
2 - BPED-950905MD - BECKLEY, WV (CHANNEL 201B1)
2A - BPED-950905MD 60 dBu
2B - BPED-950905MD 40 dBu
3 - BPED-960502MH - BECKLEY, WV (CHANNEL 201B1)
3A - BPED-960502MH 60 dBu
3B - BPED-960502MH 40 dBu
4 - BPED-920327MH - POINT PLEASANT, WV (CHANNEL 201A)
4A - BPED-920327MH 60 dBu
4B - BPED-920327MH 40 dBu
5 - WOHP - PORTSMOUTH, OH (CHANNEL 202A)
5A - WOHP 60 dBu
5B - WOHP 54 dBu
6 - WVPN - CHARLESTON, WV (CHANNEL 203B)
6A - WVPN 80 dBu
6B - WVPN 60 dBu
MAP BASE:
U.S. GEOLOGICAL SURVEY
1:1,000,000 SERIES
WORLD AERONAUTICAL CHART
KANAWHA RIVER (358)
FIG. 2.0
FM ALLOCATION STUDY
West Virginia Board of Trustees
Huntington, WV



CARL E. SMITH CONSULTING ENGINEERS
2324 N. CLEVE-MASS RD., BOX 807
BATH, OHIO 44210-0807
216/659-4440

ENGINEERING AFFIDAVIT

State of Ohio)
) ss:
County of Summit)

Roy P. Stype, III, being duly sworn, deposes and states that he is a graduate Electrical Engineer, a qualified and experienced Communications Consulting Engineer whose works are a matter of record with the Federal Communications Commission and that he is a member of the Firm of "Carl E. Smith Consulting Engineers" located at 2324 North Cleveland-Massillon Road in the Township of Bath, County of Summit, State of Ohio, and that the Firm has been retained by Positive Alternative Radio, Inc., to prepare the attached "Engineering Exhibit E-1 on behalf of the West Virginia Board of Trustees."

The deponent states that the Exhibit was prepared by him or under his direction and is true of his own knowledge, except as to statements made on information and belief and as to such statements, he believes them to be true.

Roy P. Stype, III

Subscribed and sworn to before me on **July 16, 1997.**

Notary Public

SHERI LYNN KURTZ, Notary Public
Residence - Summit County
State Wide Jurisdiction, Ohio
My Commission Expires June 14, 2000

/SEAL/

ENGINEERING AFFIDAVIT

State of Ohio)
) ss:
County of Summit)

Elmer L. Steingass, being duly sworn, deposes and states that he is a qualified and experienced Communications Consulting Engineer whose works are a matter of record with the Federal Communications Commission and that he is a member of the Firm of "Carl E. Smith Consulting Engineers" located at 2324 North Cleveland-Massillon Road in the Township of Bath, County of Summit, State of Ohio, and that the Firm has been retained by Positive Alternative Radio, Inc., to prepare the attached "Engineering Exhibit E-1 on behalf of the West Virginia Board of Trustees."

The deponent states that the Exhibit was prepared by him or under his direction and is true of his own knowledge, except as to statements made on information and belief and as to such statements, he believes them to be true.

Elmer L. Steingass

Subscribed and sworn to before me on **July 16, 1997.**

Notary Public

SHERI LYNN KURTZ, Notary Public
Residence - Summit County
State Wide Jurisdiction, Ohio
My Commission Expires June 14, 2000

/SEAL/

ENGINEERING STATEMENT

1.0 GENERAL

This engineering exhibit is prepared on behalf of the West Virginia Board of Trustees, licensee of Radio Station WMUL(FM) - Huntington, West Virginia, and applicant (BPED-921023MB) for a construction permit for a major change in the WMUL operating facilities. It supports an amendment to the above referenced pending application. WMUL is presently licensed to operate on FM Channel 201A with an effective radiated power of 1.15 kilowatts at 17 meters below average terrain. The above referenced pending application proposes operation on Channel 201B1 with an effective radiated power of 9 kilowatts at 12 meters below average terrain. This pending application is mutually exclusive with the pending application of Positive Alternative Radio, Inc. for a construction permit for a new noncommercial educational FM station on Channel 201A in Point Pleasant, West Virginia. The instant amendment, in conjunction with a concurrently filed amendment to the Point Pleasant application, serves to eliminate the mutual exclusivity between these two applications. The facilities specified in the attached amendment propose operation on Channel 201B1 with a maximum effective radiated power of 9 kilowatts at 12 meters below average terrain, using a directional antenna. The modifications proposed in this engineering exhibit are considered to constitute a minor amendment, since there will be less than a 50% change in the land area encompassed 1 mV/m contour from that proposed in this application, as originally filed.

The proposed WMUL facilities should have no impact with regard to human exposure to nonionizing radiation. The proposed antenna will be a Shively 6810-6-SS six bay half-wave spaced directional antenna that will be mounted on a 30 meter tower that stands on the roof of the Science Building on the Marshall University Campus. The

center of radiation of the proposed antenna will be 25 meters above the roof of this building. Figure 3.2, contained in Section 3.0 of this exhibit, depicts the vertical radiation pattern for this antenna. Equation (4), found on Page 8 of FCC OST Bulletin No. 65, details the calculation technique used to determine the worst case far field equivalent power density for FM stations. Using this vertical radiation data, Equation (4) predicts a worst case power density of 0.0076 mW/cm^2 at 2 meters above roof level, which will occur at a depression angle of 55 degrees below horizontal and at a distance of 16.1 meters from the base of this tower. Since the permitted power density in the FM band is 1 mW/cm^2, as outlined in ANSI Standard C95.1-1982, this constitutes only 0.76% of the permitted level. Since this value is less than 1% of the permitted level, the proposed facilities are categorically excluded from environmental processing. WMUL will also continue to comply with the above ANSI Standard with regard to occupational exposure to nonionizing radiation by ceasing operation or reducing power when work becomes necessary on this tower in the areas where the power density levels will be in excess of the permitted level.

2.0 ALLOCATION CONSIDERATIONS

Figure 2.0 shows the service and interference contours for the proposed WMUL facilities in relation to those of all stations operating on Channels 201 through 204 that require protection consideration. All contours were projected using the notified facilities for each station and terrain data extracted from the NGDC 30 second terrain database. The contours depicted in this figure for the pending application for a construction permit for a new station on Channel 201A in Point Pleasant, West Virginia, are based on the facilities proposed in the amendment which is being filed concurrently with the instant amendment to eliminate the conflict between these two applications. As shown by this figure, the proposed WMUL facilities will not cause nor receive any prohibited overlap.

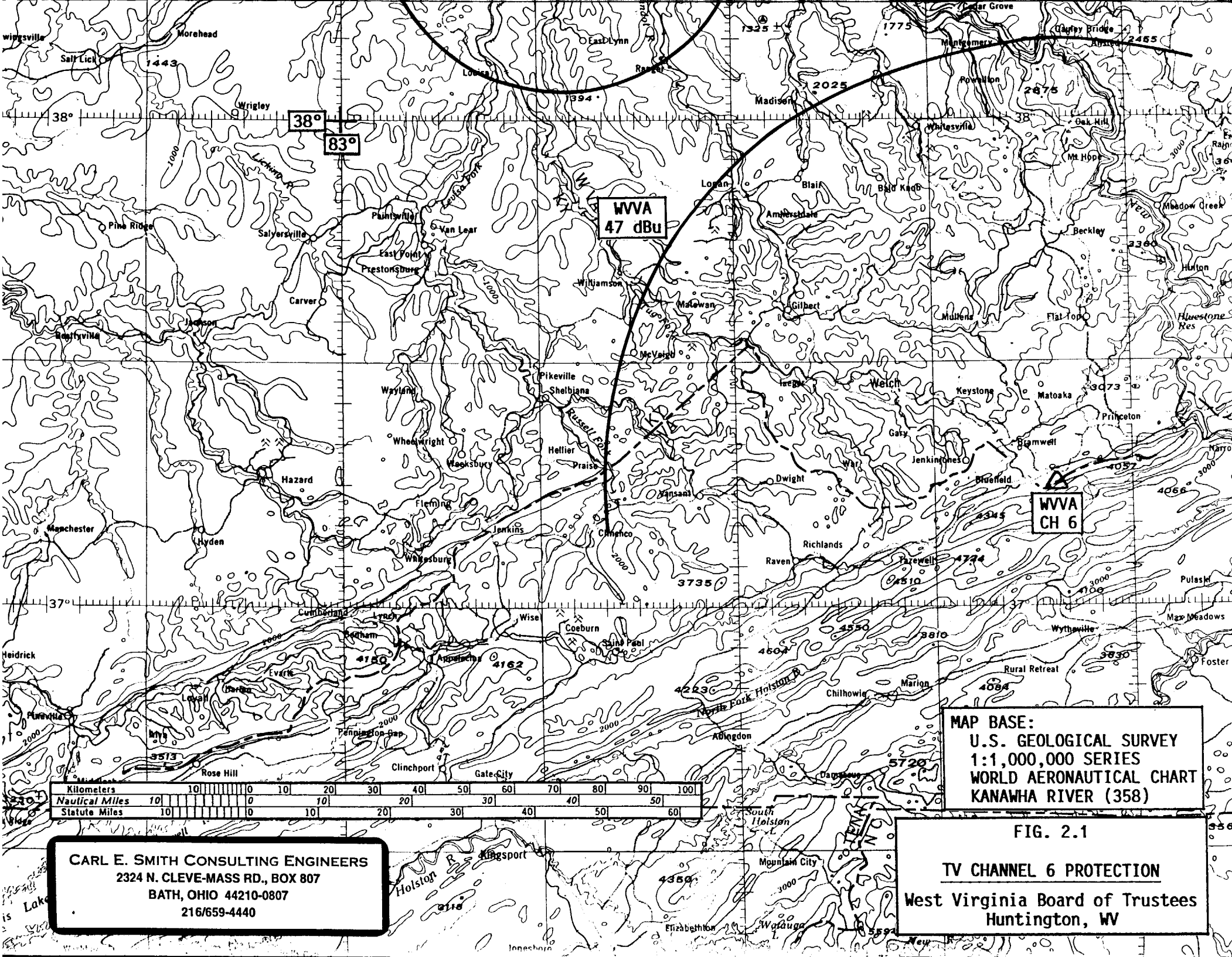
Table 2.0 is an FM allocation study showing the actual and required separations with respect to all stations operating on Channels 254 and 255. As shown by this table the proposed WMUL facilities have adequate separation from all facilities requiring consideration.

The protection standards with regard to television stations operating on Channel 6 are outlined in Section 73.525 of the FCC Rules. Stations operating on Channel 201 are required to give protection consideration to all Channel 6 stations located within 265 kilometers of their transmitter sites. In this case there are two stations which require protection consideration:

WSYX	Columbus, OH
WVVA	Bluefield, WV

Figure 2.1 is a map exhibit showing the 47 dBu (Grade B) contours for both WSYX and WVVA in relation to the 48 dBu contour for the proposed WMUL facilities. As can be seen from this figure, no overlap will occur between the proposed WMUL 48 dBu

contour and the Grade B contours of either WSYX and WVVA. It should be noted that the contour projection for the proposed WMUL facilities does not include the 6 dB adjustment for directional TV receiving antennas permitted by Section 73.525(e)(iii) of the FCC Rules. If this adjustment were included, even more clearance would exist between these contours. Based upon this information, the proposed WMUL facilities will fully comply with Section 73.525 of the FCC Rules with regard to noncommercial educational FM interference to Channel 6.



Kilometers	10	0	10	20	30	40	50	60	70	80	90	100
Nautical Miles	10	0	10	20	30	40	50					
Statute Miles	10	0	10	20	30	40	50	60				

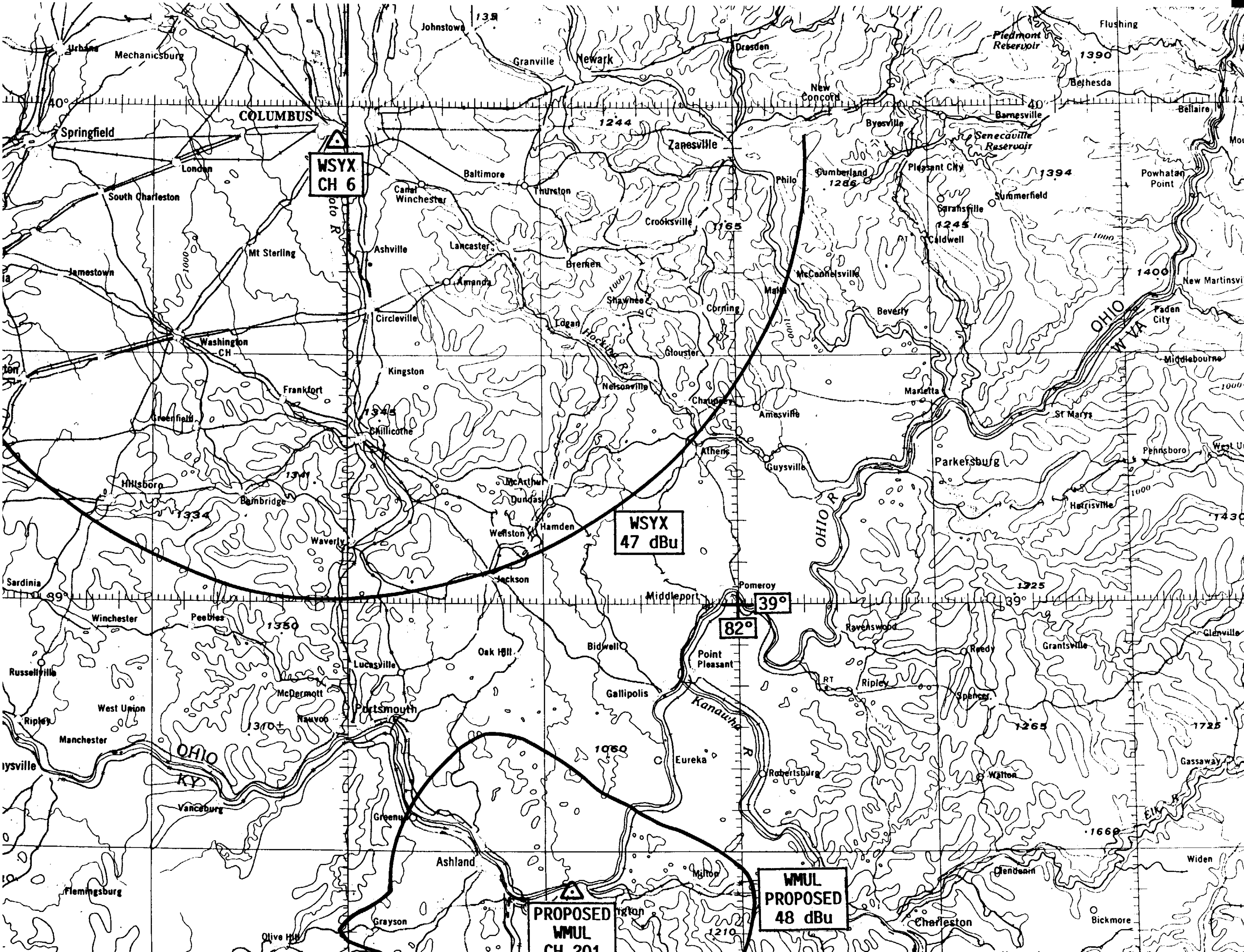
MAP BASE:
U.S. GEOLOGICAL SURVEY
1:1,000,000 SERIES
WORLD AERONAUTICAL CHART
KANAWHA RIVER (358)

FIG. 2.1

TV CHANNEL 6 PROTECTION

West Virginia Board of Trustees
Huntington, WV

CARL E. SMITH CONSULTING ENGINEERS
2324 N. CLEVE-MASS RD., BOX 807
BATH, OHIO 44210-0807
216/659-4440


WSYX
CH 6
WSYX
47 dBu
PROPOSED
WMUL
CH 201
WMUL
PROPOSED
48 dBu
39°
82°
COLUMBUS
Springfield
Urbana
Mechanicsburg
London
South Charleston
Jamestown
Mt Sterling
Washington
CH
Frankfort
Greenfield
Hillsboro
Bainbridge
Chillicothe
Kingston
Circleville
Ashville
Amanda
Lancaster
Canal
Winchester
Baltimore
Thurston
Johnstown
Granville
Newark
Dresden
New
Concord
Zanesville
Philo
Cumberland
Crooksville
Bremen
Shawnee
Logan
Hocking R
Nelsonville
Glouster
Corning
Malta
McConnelsville
Chauncey
Amesville
Athens
Guysville
McArthur
Dundas
Hamden
Wellston
Jackson
Waverly
Sardinia
Winchester
Peebles
Russellville
West Union
Ripley
Manchester
McDermott
Nauvoo
Portsmouth
Lucasville
Oak Hill
Bidwell
Gallipolis
Point
Pleasant
Middleport
Pomeroy
Kanawha R
Eureka
Robertsburg
Greenup
Ashland
Grayson
Olive Hill
Flemingsburg
Vanceburg
OHIO
KY
Milton
Charleston
Clendenin
Bickmore
Walton
Spencer
Ripley
Reedy
Ravenswood
Grantsville
Glenville
Gassaway
Elk R
Widen
Harrisville
Pennsboro
West Union
Parkersburg
St Marys
Marietta
Middlebourne
Paden
City
New Martinsville
W VA
OHIO R
Beverly
Caldwell
Sarahsville
Summerfield
Pleasant City
Senecaville
Reservoir
Byesville
Barnesville
Bethesda
Bellaire
Piedmont
Reservoir
Flushing
Powhatan
Point
Scioto R
1390
1394
1244
1286
1245
1165
1345
1341
1334
1350
1310
1060
1210
1325
1400
1430
1265
1725
1660
1000

3.0 PROPOSED ANTENNA SYSTEM

The proposed antenna will be a Shively 6810-6-SS six bay half-wave spaced directional antenna which will be mounted on an existing 30 meter tower that stands on the roof of the Science Hall on the Campus of Marshall University. Figure 3.0 is a vertical plan view of the proposed installation. It should be noted that FCC registration of this antenna structure is not required.

Table 3.1 presents a tabulation of the proposed directional pattern. This pattern is shown in polar form in Figure 3.1. Finally Figure 3.2 is a tabulation of the vertical radiation pattern for this antenna. It should be noted that the pattern shown herein is a composite envelope, or idealized pattern. When the final pattern modeling is completed by the antenna manufacturer, both the horizontally polarized and vertically polarized measured patterns will be totally contained within this envelope. The antenna will then be mounted on the tower in accordance with the manufacturer's instructions. No other antennas will be mounted within or in close proximity to the aperture of this antenna. Furthermore, there will be no platform or similar structure mounted at the top of this tower which could possibly distort the directional pattern of this antenna. The maximum effective radiated power in both the horizontal and vertical polarizations will be 9.0 kilowatts. The pattern suppression does not exceed the 15 dB value permitted by Section 73.316 of the FCC Rules. Furthermore, the pattern slope does not exceed 2 dB/10 degrees at any point on the pattern.